

# New Security Requirements for Portable Gauges

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## Summary

The U.S. Nuclear Regulatory Commission (NRC) is planning to impose specific security requirements for portable gauges to reduce the opportunity for theft. Specifically, NRC would require persons using portable gauges under specific licenses to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

This rule would apply to a licensee with a portable gauge regardless of the location, situation, and activities involving the portable gauge. At all times, the licensee would be required to either maintain control and constant surveillance of the portable gauge or use a minimum of two independent physical controls to secure the portable gauge. NRC staff expects that the physical controls would be designed and constructed of material suitable for securing the gauges from unauthorized removal. In addition, the NRC staff's expectation is that both of these controls must be defeated for the portable gauge to be removed to deter a theft by requiring a more determined effort to remove the gauge.

## Securing a Portable Gauge at a Licensed Facility

Long term storage of a portable gauge is usually at a permanent facility listed in the license or license application. Under the proposed regulation, when a portable gauge is stored at a licensed facility, the licensee would be specifically required to use a minimum of two independent physical controls to secure the gauge.

Examples of two independent physical controls to secure a portable gauge when stored at a licensed facility are:

1. The portable gauge or transportation case containing the portable gauge is stored inside a locked storage shed within a secured outdoor area, such as a fenced parking area with a locked gate;
2. The portable gauge or transportation case containing the portable gauge is stored in a room with a locked door within a secured building for which the licensee controls access by lock and key or by a security guard;
3. The portable gauge or transportation case containing the portable gauge is stored inside a locked, non-portable cabinet inside a room with a locked door if the building is not secured;
4. The portable gauge or transportation case containing the portable gauge is stored in a separate secured area inside a secured mini-warehouse or storage facility; or
5. The portable gauge or transportation case containing the portable gauge is physically secured to the inside structure of a secured mini-warehouse or storage facility.

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## **Securing a Portable Gauge in a Vehicle**

Licensees commonly use a chain and padlock to secure a portable gauge in its transportation case to the open bed of a pick-up truck while using the vehicle for storage. Because the transportation case is portable, a theft could occur if the chain is cut and the transportation case with the portable gauge in it is taken. If the licensee simply loops the chain through the handles of the transportation case, a thief could open the transportation case and take the portable gauge without removing the chain or the case. Because the transportation case is also portable, it must be protected by two independent physical controls if the portable gauge is inside. A lock on the transportation case or a lock on the portable gauge source rod handle would not be sufficient under the proposed requirements because the case and the gauge are portable.

A vehicle should be used for storage only for a short period of time when a gauge is in transit. A portable gauge should only be kept in a vehicle overnight if it is not practicable to provide temporary storage in a permanent structure. Under the proposed regulation, when a portable gauge is being stored in a vehicle, the licensee would be specifically required to use a minimum of two independent physical controls to secure the gauge.

Some examples of two such independent physical controls to secure portable gauges in these situations include:

1. The locked transportation case containing the portable gauge is physically secured to a vehicle with brackets, and a chain or steel cable (attached to the vehicle) is wrapped around the transportation case such that the case cannot be opened unless the chain or cable is removed. In this example, the locked transportation case would count as one control because the brackets would prevent easy removal of the case. The chain or cable looped only through the transportation case handle is not acceptable;
2. The portable gauge or transportation case containing the portable gauge is stored in a box physically attached to a vehicle, and the box is secured with (1) two independent locks; (2) two separate chains or steel cables attached independently to the vehicle in such a manner that the box cannot be opened without the removal of the chains or cables; or (3) one lock and one chain or steel cable is attached to the vehicle in such a manner that the box cannot be opened without the removal of the chain or cable; or
3. The portable gauge or transportation case containing the portable gauge is stored in a locked trunk, camper shell, van, or other similar enclosure and is physically secured to the vehicle by a chain or steel cable in such a manner that one would not be able to open the case or remove the portable gauge without removal of the chain or cable. In this example, the transportation case would not count as one control because it could be easily removed.

## **Securing a Portable Gauge at a Temporary Jobsite (or at Locations Other than a Licensed Facility)**

When a job requires storage of a portable gauge at a temporary jobsite or at a location other than a licensed facility, the licensee should use a permanent structure for storage if practicable to do so. When storing a portable gauge in temporary or permanent residential quarters, the licensee should

## **New Security Requirements for Portable Gauges**

limit access by storing the gauge in a separate room away from residents and other members of the public. The licensee must also meet the radiation exposure limits specified the applicable regulations.

Under the proposed regulation, when a portable gauge is stored at a temporary jobsite or at a location other than an authorized facility, the licensee would also be required to use a minimum of two independent physical controls to secure the gauge.

Examples of two independent physical controls to secure portable gauges at these locations are:

1. At a temporary job site, the portable gauge or transportation case containing the portable gauge is stored inside a locked building or in a locked non-portable structure (e.g., construction trailer, sea/land container, etc.), and is physically secured by a chain or steel cable to a non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable. A lock on the transportation case or a lock on the portable gauge source rod handle would not be sufficient because the case and the gauge are portable;
2. The portable gauge or transportation case containing the portable gauge is stored inside a locked room within temporary or permanent residential quarters, and is physically secured by a chain or steel cable to a permanent or non-portable structure (e.g., large metal drain pipe, support column, etc.) such that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable;
3. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked vehicle or is physically secured by a chain or steel cable to the vehicle in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable; or
4. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked enclosure or is physically secured by a chain or steel cable to a permanent or non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable.

### **Controlling and Maintaining Constant Surveillance of a Portable Gauge**

Under the proposed regulation, when a portable gauge is not secured with a minimum of two independent physical controls, the licensee would be required to control and maintain constant surveillance of the gauge. This proposed rule would more specifically address the current requirements for security, and satisfy other regulatory requirements which state that the licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. Control and constant surveillance is required when the gauge is not in storage (e.g., is in use or undergoing maintenance). NRC staff interprets “control and maintain constant surveillance” of portable gauges to mean being immediately present or remaining in close proximity to the portable gauge so as to be able to prevent unauthorized removal of the gauge.